

What is claimed is:

1        1. A logic device re-programmable without  
2 terminating operation, in the logic device a logic circuit  
3 is configured and maintained based on logic circuit  
4 configuration data for implementing a desired function,  
5 said logic device comprising:

6              a memory holding the logic circuit configuration data  
7 for configuring and maintaining said logic circuit; and  
8              an address controller for writing, in an unused area  
9 of said memory, logic circuit configuration data for  
10 configuring and maintaining one or more additional logic  
11 circuits without terminating operation of said logic  
12 device.

1        2. A logic device re-programmable without  
2 terminating operation as set forth in claim 1, wherein,  
3 in case of dissatisfactory functioning of a logic circuit,  
4 said address controller writes, in the unused memory area  
5 of said memory, logic circuit configuration data for  
6 configuring and maintaining (i) a substitute logic circuit  
7 which realizes a same function of the dissatisfactory logic  
8 circuit and (ii) a switch logic circuit for switching  
9 between the dissatisfactory logic circuit and said  
10 substitute logic circuit, as said additional logic  
11 circuits.